Rapid Watershed Assessments – Matrix Data

Rapid watershed assessments provide initial estimates of where conservation investments would best address the concerns of landowners, conservation districts, and other community organizations and stakeholders. These assessments help land-owners and local leaders set priorities and determine the best actions to achieve their goals.

The rapid assessment matrix summarizes, in tabular form, current and future resource conditions and their qualitative effect on primary resource concerns. The matrix also summarizes future resource conditions by cost, including: installation, annual operations, initial and annual management, and technical assistance.

The following matrix model was developed from Oregon NRCS, but has been customized to represent Missouri conditions and related economic figures. Input for the model was solicited from district conservationists from each watershed, who identified the resource concerns and typical conservation practice systems installed. As with any modeling effort, it is necessary to make assumptions and generalizations. However, these reports contain estimates from local and experienced field conservationists.

For the Lower Gasconade River Watershed, the assessment is comprised of four separate land uses – in the following table, the pages in parenthesis show where the respective assessment summary matrices are located.

Land use characteristics used in Assessment Matrix development.

Land Use	Watershed Total (acres)	Typical Unit Size (acres)	Estimated Participation* (%)
Cropland (p. 47-48)	19,393	20	40
Forestland (p. 49-50)	410,382	80	39
Grassland (p. 51-52)	206,579	60	34
Urban (p. 53-54)	3,362	5	13

* Calculated Participation Rate = Future Treated Acres / (Current Base Acres + Current Progressive Acres)

The assessment matrix for each land use identified is presented as two tables.

Assessment Information – summarizes the practices at each treatment level, the quantities of practices for current benchmark conditions and projected future conditions. It also displays the four major resource concerns along with practice effects and adds a "systems rating" indicating the overall effectiveness of the conservation system used at each level.

Rapid Watershed Assessments Matrix – Continued

Conservation Systems are identified by different conservation practices within **Treatment Levels**, as described below.
Baseline System – represents those landowners who typically are not participating in conservation programs.
Progressive System – is a level of conservation adoption that is leading to a full Resource Management System (RMS).
Resource Management System – is a system of conservation practices that address all the SWPA resource concerns typically seen for this land use in the watershed.

Each table includes the four highest priority **Resource Concerns** that typically must be dealt with for that particular land use in the watershed. Other resource concerns might be identified in the profile, but they will not be identified in the matrix. For each resource concern, a numerical **Practice Effect** rating is identified which is the default rating from the statewide Conservation Practice Physical Effects (CPPE) for both the selected resource concerns and conservation practices. The **System Rating** shown for each conservation system indicates the overall effectiveness of the conservation system used at each treatment level.

Current Conditions and Future Conditions, in terms of units of practices within the respective conservation systems, are shown for current benchmark conditions as well as for projected future conditions for each particular conservation practice that is identified within the resource concerns.

Conservation Investment Information – summarizes the installation, management, operation and maintenance costs, by practice and treatment level, for the projected future conditions by federal and private share of the costs. This table also includes the current benchmark and projected future conditions conservation status bars for the Progressive System and the Resource Management System.

USDA Investment costs are shown for each practice included within the different conservation systems.
Installation Costs are shown at a 50% cost-share rate.
Management Costs are shown for a 3-year period, at a 100% rate.
Technical Assistance Costs are shown at a 20% cost-share rate.
Total Present Value of Costs is the summation of all of the preceding costs, by conservation practice.

Private Investment costs are shown for each practice included within the different conservation systems.
Installation Costs are shown at a 50% cost-share rate.
Annual Operation and Management Costs are shown at a 100% rate.
Total Present Value of Costs is the summation of all of the preceding costs, by conservation practice.

WATERSHED NAME & CODE	LOWER GASCONADE - 10290203				LANDUSE ACRES	19,393		
LANDUSE TYPE	CROPLAND				TYPICAL UNIT SIZE ACRES	20		
ASSESSMENT INFORMATION					ESTIMATED PARTICIPATION	40%		
CONSERVATION SYSTEMS BY TREATMENT LEVELS	**CURRENT CONDITIONS**	**FUTURE CONDITIONS**			**RESOURCE CONCERNS**			
	Total Units	**Existing Unchanged Units**	**New Treatment Units**	**Total Units**	**Soil Erosion – Sheet and Rill**	**Soil Erosion – Ephemeral Gully**	**Soil Erosion – Streambank**	**Soil Condition – Compaction**
Baseline System			**System Rating ->**		**4**	**3**	**2**	**2**
Total Acreage at Baseline Level	**11,636**	**5,818**	**0**	**5,818**				
Conservation Crop Rotation (ac.) 328	11,636	5,818	0	5,818	4	2	0	2
Critical Area Planting (ac.) 342	582	291	0	291	5	5	4	3
Progressive System			**System Rating ->**		**4**	**1**	**0**	**2**
Total Acreage at Progressive Level	**5,818**	**4,654**	**4,073**	**8,727**				
Conservation Cover (ac.) 327	582	465	407	873	5	2	1	3
Conservation Crop Rotation (ac.) 328	5,818	8,727	0	8,727	4	2	0	2
Resource Management System (RMS)			**System Rating ->**		**5**	**3**	**2**	**3**
Total Acreage at RMS Level	**1,939**	**1,939**	**2,909**	**4,848**				
Conservation Cover (ac.) 327	194	310	175	485	5	2	1	3
Conservation Crop Rotation (ac.) 328	1,745	4,363	0	4,363	4	2	0	2
Nutrient Management (ac.) 590	1,745	1,745	2,618	4,363	0	0	0	-2
Pest Management (ac.) 595	1,939	1,939	2,909	4,848	0	0	0	2
Residue and Tillage Management, No-Till/Strip Till/Direct Seed (ac.) 329	1,745	1,745	2,618	4,363	5	5	0	2
Riparian Forest Buffer (ac.) 391	194	194	291	485	2	1	4	4
Tree/Shrub Establishment (ac.) 612	194	194	291	485	5	4	0	2
Tree/Shrub Site Preparation (ac.) 490	194	194	291	485	-1	-2	0	-1

WATERSHED NAME & CODE	LOWER GASCONADE - 10290203	LANDUSE ACRES	19,393
LANDUSE TYPE	CROPLAND	TYPICAL UNIT SIZE ACRES	20
CONSERVATION INVESTMENT INFORMATION		ESTIMATED PARTICIPATION	40%

CONSERVATION SYSTEMS BY TREATMENT LEVELS	FUTURE	USDA INVESTMENT				PRIVATE INVESTMENT		
	New Treatment Units	Installation Cost 50%	Management Cost - 3 yrs 100%	Technical Assistance 20%	Total Present Value Cost	Installation Cost 50%	Annual O & M + Mgt Costs 100%	Total Present Value Cost
Progressive System Acres Treated	**4072.53**							
Conservation Cover (ac.) 327	407	$25,769	$0	$5,154	$30,923	$25,769	$515	$27,940
Conservation Crop Rotation (ac.) 328	0	$0	$0	$0	$0	$0	$0	$0
	Subtotal	**$25,769**	**$0**	**$5,154**	**$30,923**	**$25,769**	**$515**	**$27,940**
Resource Management System (RMS) Acres Treated	**2908.95**							
Conservation Cover (ac.) 327	175	$11,044	$0	$2,209	$13,253	$11,044	$221	$11,974
Conservation Crop Rotation (ac.) 328	0	$0	$0	$0	$0	$0	$0	$0
Nutrient Management (ac.) 590	2,618	$0	$99,512	$19,902	$108,568	$0	$33,171	$51,061
Pest Management (ac.) 595	2,909	$0	$186,231	$37,246	$203,179	$0	$62,077	$95,558
Residue and Tillage Management, No-Till/Strip Till/Direct Seed (ac.) 329	2,618	$0	$142,396	$28,479	$155,355	$0	$47,465	$73,066
Riparian Forest Buffer (ac.) 391	291	$47,416	$0	$9,483	$56,899	$47,416	$948	$51,411
Tree/Shrub Establishment (ac.) 612	291	$47,416	$0	$9,483	$56,899	$47,416	$0	$47,416
Tree/Shrub Site Preparation (ac.) 490	291	$0	$39,088	$7,818	$42,645	$0	$13,029	$20,057
	Subtotal	**$105,876**	**$467,227**	**$114,620**	**$636,797**	**$105,876**	**$156,911**	**$350,543**
TOTAL ACRES TREATED / ESTIMATED TREATMENT COSTS	**6981.48**	**$131,645**	**$467,227**	**$119,774**	**$667,720**	**$131,645**	**$157,427**	**$378,483**

WATERSHED NAME & CODE	LOWER GASCONADE - 10290203				LANDUSE ACRES	410,382		
LANDUSE TYPE	FORESTLAND				TYPICAL UNIT SIZE ACRES	80		
ASSESSMENT INFORMATION					ESTIMATED PARTICIPATION	39%		
CONSERVATION SYSTEMS BY TREATMENT LEVELS	CURRENT CONDITIONS	FUTURE CONDITIONS			RESOURCE CONCERNS			
	Total Units	Existing Unchanged Units	New Treatment Units	Total Units	Soil Erosion – Sheet and Rill	Soil Condition – Compaction	Plant Condition – T & E Plant Species: Declining Species, Species of Concern	Fish and Wildlife – Inadequate Food
Baseline System				System Rating ->	4	2	0	2
Total Acreage at Baseline Level	**328,306**	**196,983**	**0**	**196,983**				
Critical Area Planting (ac.) 342	16,415	9,849	0	9,849	5	3	0	2
Tree/Shrub Establishment (ac.) 612	16,415	9,849	0	9,849	5	2	0	3
Progressive System				System Rating ->	5	2	3	3
Total Acreage at Progressive Level	**41,038**	**28,727**	**98,492**	**127,218**				
Brush Management (ac.) 314	2,052	1,436	4,925	6,361	3	-1	0	3
Critical Area Planting (ac.) 342	2,052	6,361	0	6,361	5	3	0	2
Forest Stand Improvement (ac.) 666	38,986	27,290	93,567	120,857	3	0	0	3
Prescribed Forestry (ac.) 409	41,038	28,727	98,492	127,218	5	3	5	3
Tree/Shrub Pruning (ac.) 660	2,052	1,436	4,925	6,361	1	0	0	1
Resource Management System (RMS)				System Rating ->	4	1	3	4
Total Acreage at RMS Level	**41,038**	**41,038**	**45,142**	**86,180**				
Access Road (ft.) 560	1,015,695	1,015,695	1,117,265	2,132,960	0	2	-1	0
Brush Management (ac.) 314	2,052	2,667	1,642	4,309	3	-1	0	3
Critical Area Planting (ac.) 342	2,052	4,309	0	4,309	5	3	0	2
Forest Stand Improvement (ac.) 666	38,986	50,682	31,189	81,871	3	0	0	3
Forest Trails and Landings (ac.) 655	4,104	4,104	4,514	8,618	-1	-4	0	1
Pest Management (ac.) 595	41,038	41,038	45,142	86,180	0	2	3	3
Prescribed Burning (ac.) 338	12,311	12,311	13,543	25,854	1	0	0	3
Prescribed Forestry (ac.) 409	41,038	53,350	32,831	86,180	5	3	5	3
Tree/Shrub Pruning (ac.) 660	2,052	2,667	1,642	4,309	1	0	0	1
Tree/Shrub Site Preparation (ac.) 490	4,104	4,104	4,514	8,618	-1	-1	0	0
Wildlife Watering Facility (no.) 648	513	513	564	1,077	0	0	0	4

WATERSHED NAME & CODE	LOWER GASCONADE - 10290203	LANDUSE ACRES	410,382
LANDUSE TYPE	FORESTLAND	TYPICAL UNIT SIZE ACRES	80
CONSERVATION INVESTMENT INFORMATION		ESTIMATED PARTICIPATION	39%

CONSERVATION SYSTEMS BY TREATMENT LEVELS	FUTURE	USDA INVESTMENT				PRIVATE INVESTMENT		
	New Treatment Units	Installation Cost 50%	Management Cost - 3 yrs 100%	Technical Assistance 20%	Total Present Value Cost	Installation Cost 50%	Annual O & M + Mgt Costs 100%	Total Present Value Cost
Progressive System Acres Treated	**98491.68**							
Brush Management (ac.) 314	4,925	$218,381	$0	$43,676	$262,057	$218,381	$4,368	$236,779
Critical Area Planting (ac.) 342	0	$0	$0	$0	$0	$0	$0	$0
Forest Stand Improvement (ac.) 666	93,567	$4,188,531	$0	$837,706	$5,026,237	$4,188,531	$83,771	$4,541,403
Prescribed Forestry (ac.) 409	98,492	$2,462,292	$0	$492,458	$2,954,750	$2,462,292	$0	$2,462,292
Tree/Shrub Pruning (ac.) 660	4,925	$554,016	$0	$110,803	$664,819	$554,016	$22,161	$647,364
	Subtotal	**$7,423,219**	**$0**	**$1,484,644**	**$8,907,863**	**$7,423,219**	**$110,299**	**$7,887,838**
Resource Management System (RMS) Acres Treated	**45142.02**							
Access Road (ft.) 560	1,117,265	$2,793,162	$0	$558,632	$3,351,795	$2,793,162	$167,590	$3,499,111
Brush Management (ac.) 314	1,642	$72,794	$0	$14,559	$87,352	$72,794	$1,456	$78,926
Critical Area Planting (ac.) 342	0	$0	$0	$0	$0	$0	$0	$0
Forest Stand Improvement (ac.) 666	31,189	$1,396,177	$0	$279,235	$1,675,412	$1,396,177	$27,924	$1,513,801
Forest Trails and Landings (ac.) 655	4,514	$2,689,404	$0	$537,881	$3,227,284	$2,689,404	$107,576	$3,142,553
Pest Management (ac.) 595	45,142	$0	$2,889,992	$577,998	$3,152,993	$0	$963,331	$1,482,905
Prescribed Burning (ac.) 338	13,543	$119,446	$0	$23,889	$143,335	$119,446	$0	$119,446
Prescribed Forestry (ac.) 409	32,831	$820,764	$0	$164,153	$984,917	$820,764	$0	$820,764
Tree/Shrub Pruning (ac.) 660	1,642	$184,672	$0	$36,934	$221,606	$184,672	$7,387	$215,788
Tree/Shrub Site Preparation (ac.) 490	4,514	$0	$606,573	$121,315	$661,774	$0	$202,191	$311,243
Wildlife Watering Facility (no.) 648	564	$207,148	$0	$41,430	$248,578	$207,148	$0	$207,148
	Subtotal	**$8,283,567**	**$3,496,565**	**$2,356,026**	**$13,755,047**	**$8,283,567**	**$1,477,454**	**$11,391,687**
TOTAL ACRES TREATED / ESTIMATED TREATMENT COSTS	**143633.7**	**$15,706,786**	**$3,496,565**	**$3,840,670**	**$22,662,910**	**$15,706,786**	**$1,587,753**	**$19,279,525**

WATERSHED NAME & CODE	LOWER GASCONADE - 10290203				LANDUSE ACRES	206,579		
LANDUSE TYPE	GRASSLAND				TYPICAL UNIT SIZE ACRES	60		
ASSESSMENT INFORMATION					ESTIMATED PARTICIPATION	34%		
CONSERVATION SYSTEMS BY TREATMENT LEVELS	CURRENT CONDITIONS	FUTURE CONDITIONS			RESOURCE CONCERNS			
	Total Units	Existing Unchanged Units	New Treatment Units	Total Units	Soil Erosion – Ephemeral Gully	Water Quantity – Insufficient Flows in Watercourses	Water Quality – Excessive Nutrients and Organics in Groundwater	Plant Condition – Forage Quality and Palatability
Baseline System			**System Rating ->**		**4**	**0**	**1**	**3**
Total Acreage at Baseline Level	**134,276**	**80,566**	**0**	**80,566**				
Critical Area Planting (ac.) 342	6,714	4,028	0	4,028	5	0	1	0
Pasture and Hay Planting (ac.) 512	134,276	80,566	0	80,566	4	1	2	5
Progressive System			**System Rating ->**		**4**	**1**	**1**	**4**
Total Acreage at Progressive Level	**51,645**	**41,316**	**33,569**	**74,885**				
Critical Area Planting (ac.) 342	2,582	3,744	0	3,744	5	0	1	0
Fence (ft.) 382	3,442,983	2,754,387	2,237,939	4,992,326	0	0	0	0
Pasture and Hay Planting (ac.) 512	45,447	65,899	0	65,899	4	1	2	5
Pond (no.) 378	861	689	559	1,248	0	-1	-1	0
Use Exclusion (ac.) 472	6,197	4,958	4,028	8,986	2	2	1	4
Resource Management System (RMS)			**System Rating ->**		**4**	**2**	**4**	**5**
Total Acreage at RMS Level	**20,658**	**20,658**	**30,470**	**51,128**				
Critical Area Planting (ac.) 342	1,033	2,556	0	2,556	5	0	1	0
Fence (ft.) 382	2,754,387	3,442,983	3,374,124	6,817,107	0	0	0	0
Forage Harvest Management (ac.) 511	18,179	18,179	26,814	44,993	2	1	2	4
Heavy Use Area Protection (ac.) 561	1,033	1,033	1,524	2,556	3	0	0	0
Manure Transfer (no.) 634	344	344	508	852	0	0	2	0
Pasture and Hay Planting (ac.) 512	18,179	44,993	0	44,993	4	1	2	5
Pipeline (ft.) 516	688,597	688,597	1,015,680	1,704,277	0	0	0	0
Pond (no.) 378	344	516	336	852	0	-1	-1	0
Prescribed Grazing (ac.) 528	18,179	18,179	26,814	44,993	4	0	1	4
Riparian Forest Buffer (ac.) 391	2,066	2,066	3,047	5,113	1	4	5	4
Spring Development (no.) 574	344	344	508	852	0	-1	0	0
Tree/Shrub Establishment (ac.) 612	2,066	2,066	3,047	5,113	4	2	2	5
Tree/Shrub Site Preparation (ac.) 490	2,066	2,066	3,047	5,113	-2	0	0	0
Use Exclusion (ac.) 472	2,479	3,718	2,417	6,135	2	2	1	4
Water Well (no.) 642	344	344	508	852	2	0	0	0
Watering Facility (no.) 614	344	344	508	852	2	0	0	0

WATERSHED NAME & CODE	LOWER GASCONADE - 10290203	LANDUSE ACRES	206,579
LANDUSE TYPE	GRASSLAND	TYPICAL UNIT SIZE ACRES	60
CONSERVATION INVESTMENT INFORMATION		ESTIMATED PARTICIPATION	34%

CONSERVATION SYSTEMS BY TREATMENT LEVELS	FUTURE	USDA INVESTMENT				PRIVATE INVESTMENT		
	New Treatment Units	Installation Cost 50%	Management Cost - 3 yrs 100%	Technical Assistance 20%	Total Present Value Cost	Installation Cost 50%	Annual O & M + Mgt Costs 100%	Total Present Value Cost
Progressive System Acres Treated	**33569.0875**							
Critical Area Planting (ac.) 342	0	$0	$0	$0	$0	$0	$0	$0
Fence (ft.) 382	2,237,939	$1,633,696	$0	$326,739	$1,960,435	$1,633,696	$163,370	$2,321,868
Pasture and Hay Planting (ac.) 512	0	$0	$0	$0	$0	$0	$0	$0
Pond (no.) 378	559	$1,678,454	$0	$335,691	$2,014,145	$1,678,454	$67,138	$1,961,265
Use Exclusion (ac.) 472	4,028	$10,071	$0	$2,014	$12,085	$10,071	$604	$12,616
	Subtotal	**$3,322,221**	**$0**	**$664,444**	**$3,986,665**	**$3,322,221**	**$231,112**	**$4,295,748**
Resource Management System (RMS) Acres Treated	**30470.4025**							
Critical Area Planting (ac.) 342	0	$0	$0	$0	$0	$0	$0	$0
Fence (ft.) 382	3,374,124	$2,463,110	$0	$492,622	$2,955,732	$2,463,110	$246,311	$3,500,662
Forage Harvest Management (ac.) 511	26,814	$107,256	$0	$21,451	$128,707	$107,256	$32,177	$242,796
Heavy Use Area Protection (ac.) 561	1,524	$39,781,853	$0	$7,956,371	$47,738,223	$39,781,853	$3,978,185	$56,539,416
Manure Transfer (no.) 634	508	$0	$33,792,895	$6,758,579	$36,868,183	$0	$11,264,298	$17,339,718
Pasture and Hay Planting (ac.) 512	0	$0	$0	$0	$0	$0	$0	$0
Pipeline (ft.) 516	1,015,680	$1,091,856	$0	$218,371	$1,310,227	$1,091,856	$0	$1,091,856
Pond (no.) 378	336	$1,007,073	$0	$201,415	$1,208,487	$1,007,073	$40,283	$1,176,759
Prescribed Grazing (ac.) 528	26,814	$117,981	$0	$23,596	$141,578	$117,981	$0	$117,981
Riparian Forest Buffer (ac.) 391	3,047	$496,668	$0	$99,334	$596,001	$496,668	$9,933	$538,510
Spring Development (no.) 574	508	$65,529	$0	$13,106	$78,635	$65,529	$3,932	$82,091
Tree/Shrub Establishment (ac.) 612	3,047	$496,668	$0	$99,334	$596,001	$496,668	$0	$496,668
Tree/Shrub Site Preparation (ac.) 490	3,047	$0	$409,431	$81,886	$446,691	$0	$136,477	$210,086
Use Exclusion (ac.) 472	2,417	$6,042	$0	$1,208	$7,251	$6,042	$363	$7,570
Water Well (no.) 642	508	$759,637	$0	$151,927	$911,565	$759,637	$30,385	$887,632
Watering Facility (no.) 614	508	$230,653	$0	$46,131	$276,784	$230,653	$9,226	$269,517
	Subtotal	**$46,624,326**	**$34,202,326**	**$16,165,330**	**$93,264,065**	**$46,624,326**	**$15,751,571**	**$82,501,263**
TOTAL ACRES TREATED / ESTIMATED TREATMENT COSTS	**64039.49**	**$49,946,547**	**$34,202,326**	**$16,829,775**	**$97,250,730**	**$49,946,547**	**$15,982,683**	**$86,797,011**

WATERSHED NAME & CODE	LOWER GASCONADE - 10290203				LANDUSE ACRES			3,262
LANDUSE TYPE	HIGH AND LOW INTENSITY URBAN				TYPICAL UNIT SIZE ACRES			5
ASSESSMENT INFORMATION					ESTIMATED PARTICIPATION			13%
CONSERVATION SYSTEMS BY TREATMENT LEVELS	CURRENT CONDITIONS	FUTURE CONDITIONS			RESOURCE CONCERNS			
	Total Units	Existing Unchanged Units	New Treatment Units	Total Units	Soil Erosion – Sheet and Rill	Soil Erosion – Ephemeral Gully	Soil Erosion – Classic Gully	Water Quantity – Excessive Runoff, Flooding, or Ponding
Baseline System			System Rating ->		3	3	2	0
Total Acreage at Baseline Level	2,936	2,554	0	2,554				
Critical Area Planting (ac.) 342	147	128	0	128	5	5	4	0
Progressive System			System Rating ->		4	4	2	1
Total Acreage at Progressive Level	163	147	235	382				
Critical Area Planting (ac.) 342	8	19	0	19	5	5	4	0
Mulching (ac.) 484	16	15	23	38	4	4	1	2
Tree/Shrub Establishment (ac.) 612	12	11	18	29	5	4	2	-1
Resource Management System (RMS)			System Rating ->		5	4	2	2
Total Acreage at RMS Level	163	163	163	326				
Critical Area Planting (ac.) 342	8	16	0	16	5	5	4	0
Mulching (ac.) 484	24	26	23	49	4	4	1	2
Pest Management (ac.) 595	108	108	108	215	0	0	0	0
Prescribed Forestry (ac.) 409	12	12	12	24	5	4	2	2
Recreation Area Improvement (ac.) 562	122	122	122	245	4	4	1	2
Tree/Shrub Establishment (ac.) 612	12	13	11	24	5	4	2	-1
Tree/Shrub Site Preparation (ac.) 490	12	12	12	24	-1	-2	-2	0

WATERSHED NAME & CODE	LOWER GASCONADE - 10290203	LANDUSE ACRES	3,262
LANDUSE TYPE	HIGH AND LOW INTENSITY URBAN	TYPICAL UNIT SIZE ACRES	5
CONSERVATION INVESTMENT INFORMATION		ESTIMATED PARTICIPATION	13%

CONSERVATION SYSTEMS BY TREATMENT LEVELS	FUTURE	USDA INVESTMENT				PRIVATE INVESTMENT		
	New Treatment Units	Installation Cost 50%	Management Cost - 3 yrs 100%	Technical Assistance 20%	Total Present Value Cost	Installation Cost 50%	Annual O & M + Mgt Costs 100%	Total Present Value Cost
Progressive System Acres Treated	**234.864**							
Critical Area Planting (ac.) 342	0	$0	$0	$0	$0	$0	$0	$0
Mulching (ac.) 484	23	$0	$7,046	$1,409	$7,687	$0	$2,349	$3,615
Tree/Shrub Establishment (ac.) 612	18	$2,871	$0	$574	$3,445	$2,871	$0	$2,871
	Subtotal	**$2,871**	**$7,046**	**$1,983**	**$11,133**	**$2,871**	**$2,349**	**$6,487**
Resource Management System (RMS) Acres Treated	**163.1**							
Critical Area Planting (ac.) 342	0	$0	$0	$0	$0	$0	$0	$0
Mulching (ac.) 484	23	$0	$6,850	$1,370	$7,474	$0	$2,283	$3,515
Pest Management (ac.) 595	108	$0	$6,891	$1,378	$7,519	$0	$2,297	$3,536
Prescribed Forestry (ac.) 409	12	$306	$0	$61	$367	$306	$0	$306
Recreation Area Improvement (ac.) 562	122	$30,581	$0	$6,116	$36,698	$30,581	$3,058	$43,463
Tree/Shrub Establishment (ac.) 612	11	$1,795	$0	$359	$2,153	$1,795	$0	$1,795
Tree/Shrub Site Preparation (ac.) 490	12	$0	$1,644	$329	$1,793	$0	$548	$843
	Subtotal	**$32,682**	**$15,385**	**$9,613**	**$56,003**	**$32,682**	**$8,187**	**$53,458**
TOTAL ACRES TREATED / ESTIMATED TREATMENT COSTS	**397.964**	**$35,553**	**$22,431**	**$11,597**	**$67,136**	**$35,553**	**$10,535**	**$59,945**

Footnotes / Bibliography

All data is provided "as is". There are no warranties, expressed or implied, including the warranty of fitness for a particular purpose, accompanying this document. Use for general planning purposes only.

Some data that was provided was given for areas that do not match up perfectly with the watershed. For these areas, such as county wide and census data, figures were adjusted by percent of the HUC in the area.

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Railroads. Map Layer. Federal Railroad Administration, 2003.
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Hillshade Relief Map of Missouri. Map Layer. CARES, 2005.

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Karst Features Map:

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Land Ownership Map:

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Land Slope Map:

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Land Use / Land Cover Map:

2005 Land Use Land Cover. Map Layer. MoRAP, 2005.

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Land Use / Land Cover Pie Chart:

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Land Use / Land Cover Graph:

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Riparian Corridor Map:

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Prime Farmlands Map:

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Census Data by Block Map:

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Income Sources Graph:

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